**What is claimed is**:

1. A coin sorting apparatus comprising:

coin sorting means for sorting coins according to size of the coins;

a guide for transferring the coins sorted by the coin sorting means to a predetermined location;

first sensing means formed on the guide, for counting the number of the coins being sorted;

a coin receiving tube disposed on an end portion of the guide, for receiving the coins transferred from the guide;

a receiving container for receiving the coin receiving tube, the receiving container being provided at a lower side with a second sensing hole and a sliding projection;

a sliding member provided with a sliding groove engaged with the sliding projection so that the receiving container can be easily inserted and withdrawn;

second sensing means spaced apart by a predetermined distance from the second sensing hole and aligned with the second sensing hole to be in-line; and

a microcomputer for controlling the coin sorting apparatus in accordance with signals from the first and second sensing means.

2. The coin sorting apparatus of claim 1, further comprising a speaker for making a predetermined sound according to an operation state of the coin sorting means.

3. The coin sorting apparatus of claim 1, further comprising a control/display part for controlling and displaying an operation state of the coin sorting means.

4. The coin sorting apparatus of claim 1, wherein the sensing means is formed of an optical sensor.

5. The coin sorting apparatus of claim 1, wherein the coin sorting means comprises a motor, a rotational shaft driven by the motor, a carrier container coupled on the rotational shaft and provided with carrier holes through which the coins are carried one by one, and a separation member provided with a plurality of separation holes having different sizes, the separation holes being formed corresponding to the carrier holes to separate the coins according to size.

6. The coin sorting apparatus of claim 1, wherein the sliding projection comprises an extending portion extending downward from the receiving container, upper and lower plates disposed around the extending portion, and an elastic member disposed around the extending portion between the upper and lower plates to bias the upper plate upward to create friction force between the sliding member and the upper plate.

7. The coin sorting apparatus of claim 1, wherein the microcomputer controls the coin sorting apparatus such that

the number or amount of coins being received in the coin receiving tube in the course of the operation of the coin sorting means and the number or amount of coins received in the coin receiving tube when the operation of the coin sorting means is stopped can be distinguishably displayed.

8. The coin sorting apparatus of claim 1, wherein the first sensing means is formed to be offset from a center of the guide.

9. A coin sorting apparatus comprising:

coin sorting means for sorting coins according to size of the coins;

a guide for transferring the coins sorted by the coin sorting means to a predetermined location;

first sensing means formed on the guide, for counting the number of the coins being sorted;

a coin receiving tube disposed on an end portion of the guide, for receiving the coins transferred from the guide;

a receiving container for receiving the coin receiving tube, the receiving container being provided at a lower side with a second sensing hole and a sliding projection;

a sliding member provided with a sliding groove engaged with the sliding projection so that the receiving container can be easily inserted and withdrawn; and

a microcomputer for controlling the coin sorting apparatus in accordance with a signal from the first sensing

means.

10. The coin sorting apparatus of claim 9 further comprising a speaker for making a predetermined sound according to an operation state of the coin sorting means.

11. The coin sorting apparatus of claim 9 further comprising a control/display part for controlling and displaying an operation state of the coin sorting means.

12. The coin sorting apparatus of claim 9, wherein the sensing means is formed of an optical sensor.

13. The coin sorting apparatus of claim 9, wherein the coin sorting means comprises a motor, a rotational shaft driven by the motor, a carrier container coupled on the rotational shaft and provided with carrier holes through which the coins are carried one by one, and a separation member provided with a plurality of separation holes having different sizes, the separation holes being formed corresponding to the carrier holes to separate the coins according to size.

14. The coin sorting apparatus of claim 9, wherein the sliding projection comprises an extending portion extending downward from the receiving container, upper and lower plates disposed around the extending portion, and an elastic member disposed around the extending portion between the upper and

lower plates to bias the upper plate upward to create friction force between the sliding member and the upper plate.

15. The coin sorting apparatus of claim 9, wherein the microcomputer controls the coin sorting apparatus such that the number or amount of coins being received in the coin receiving tube in the course of the operation of the coin sorting means and the number or amount of coins received in the coin receiving tube when the operation of the coin sorting means is stopped can be displayed.

16. The coin sorting apparatus of claim 9, wherein the first sensing means is formed to be offset from a center of the guide.

17. A coin sorting apparatus comprising:

coin sorting means for sorting coins according to size of the coins;

a guide for transferring the coins sorted by the coin sorting means to a predetermined location;

a coin receiving tube disposed on an end portion of the guide, for receiving the coins transferred from the guide;

a receiving container for receiving the coin receiving tube, the receiving container being provided at a lower side with a second sensing hole and a sliding projection;

a sliding member provided with a sliding groove engaged with the sliding projection so that the receiving container

can be easily inserted and withdrawn;

second sensing means spaced apart by a predetermined distance from the second sensing hole and aligned with the second sensing hole to be in-line; and

a microcomputer for controlling the coin sorting apparatus in accordance with signals from the second sensing means.

18. The coin sorting apparatus of claim 17, wherein the sensing means is an optical sensor.

19. The coin sorting apparatus of claim 17, wherein the coin sorting means comprises a motor, a rotational shaft driven by the motor, a carrier container coupled on the rotational shaft and provided with carrier holes through which the coins are carried one by one, and a separation member provided with a plurality of separation holes having different sizes, the separation holes being formed corresponding to the carrier holes to separate the coins according to size.

20. The coin sorting apparatus of claim 17, wherein the sliding projection comprises an extending portion extending downward from the receiving container, upper and lower plates disposed around the extending portion, and an elastic member disposed around the extending portion between the upper and lower plates to bias the upper plate upward to create friction force between the sliding member and the upper plate.

21. A coin sorting apparatus comprising:

coin sorting means for sorting coins according to size of the coins;

a guide for transferring the coins sorted by the coin sorting means to a predetermined location;

second sensing means for detecting a displacement of the coin receiving tube; and

a microcomputer for controlling the coin sorting apparatus in accordance with a signals from the second sensing means.

22. A coin sorting apparatus comprising:

coin sorting means for sorting coins according to size of the coins;

a guide for transferring the coins sorted by the coin sorting means to a predetermined location;

first sensing means formed on the guide, for counting the number of the coins being sorted;

a coin receiving tube disposed on an end portion of the guide, for receiving the coins transferred from the guide; and

a display device for displaying the number of amount of sorted coins in accordance with a signal detected by the first sensing means.

23. A coin sorting apparatus comprising:

first sensing means for counting the number of coins

being sorted according to size of the coins;

second sensing means for detecting if a coin receiving tube is positioned on a location for appropriately receiving the coins;

a microcomputer for controlling the coin sorting apparatus in accordance with signals from the first and second sensing means; and

coin sorting means controlled by the microcomputer such that an operation of the coin sorting means is started or stopped.

24. The coin sorting apparatus of claim 23, further comprising a speaker for making a predetermined sound when it is determined by the first sensing means that a predetermined number of the coins are sorted or the operation of the coin sorting means is stopped.

25. The coin sorting apparatus of claim 23, further comprising a control/display part for controlling and displaying an operation state of the coin sorting means.

26. A coin sorting apparatus comprising:

first sensing means for counting the number of coins being sorted according to size of the coins;

a microcomputer for controlling the coin sorting apparatus and displaying the number and/or amount of the sorted coins in accordance with a signal detected by the first

sensing means;

a user interface allowing a user to control the coin sorting apparatus and displaying an operation state of the coin sorting apparatus; and

coin sorting means controlled by the microcomputer such that an operation of the coin sorting means is started or stopped.

27. The coin sorting apparatus of claim 26, wherein the user interface comprises a plurality of control buttons and a display part.

28. The coin sorting apparatus of claim 26, wherein the microcomputer controls the coin sorting apparatus such that amounts of the coins sorted by the size or a total amount of the sorted coins can be displayed.

29. The coin sorting apparatus of claim 26, wherein the microcomputer controls the coin sorting apparatus such that the number of coins sorted by size can be displayed within a predetermined range.

30. The coin sorting apparatus of claim 26, wherein the microcomputer controls the coin sorting apparatus such that the number coins being received in the coin receiving tube in the course of the operation of the coin sorting means and the number of coins received in the coin receiving tube when the

operation of the coin sorting means is stopped can be distinguishably displayed.

31. A method for sorting coins, the method comprising the steps of:

separating the coins by size when a motor is operated;

detecting the number of sorted coins by size;

stopping an operation of coin sorting means when it is detected that a predetermined number of the coins having a predetermined size is sorted; and

operating again the coin sorting means when coin receiving means is displaced to a predetermined location.

32. The method of claim 31, further comprising the step of stopping the operation of the coin sorting means when the number of coins being sorted is not increased for a predetermined time.

33. The method of claim 31, further comprising the step of making a sound or displaying an image so as to let a user identify the operation stop of the coin sorting means.